

# **Service Manual**

## **LCD TV For LT26HVX**

**Doc. No. :**

**Version : 1.0**

**Total Pages : 34**

<b>Approvals</b>		
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## **1. Introduction**

### **1.1 Preface**

This service manual aims directly at the module of LCD TV. It offers the simple repair which emphasizes on technique explanation and production troubles to remove for the engineers and technicians who have electronic background.

### **1.2 Caution**

Be sure to read those manual before servicing. To assure safety from fire, electric shock, injury, harmful radiation and materials, various measures are provided in this Digimedia LCD TV. Be sure to read cautionary items described in the manual to maintain safety before servicing.

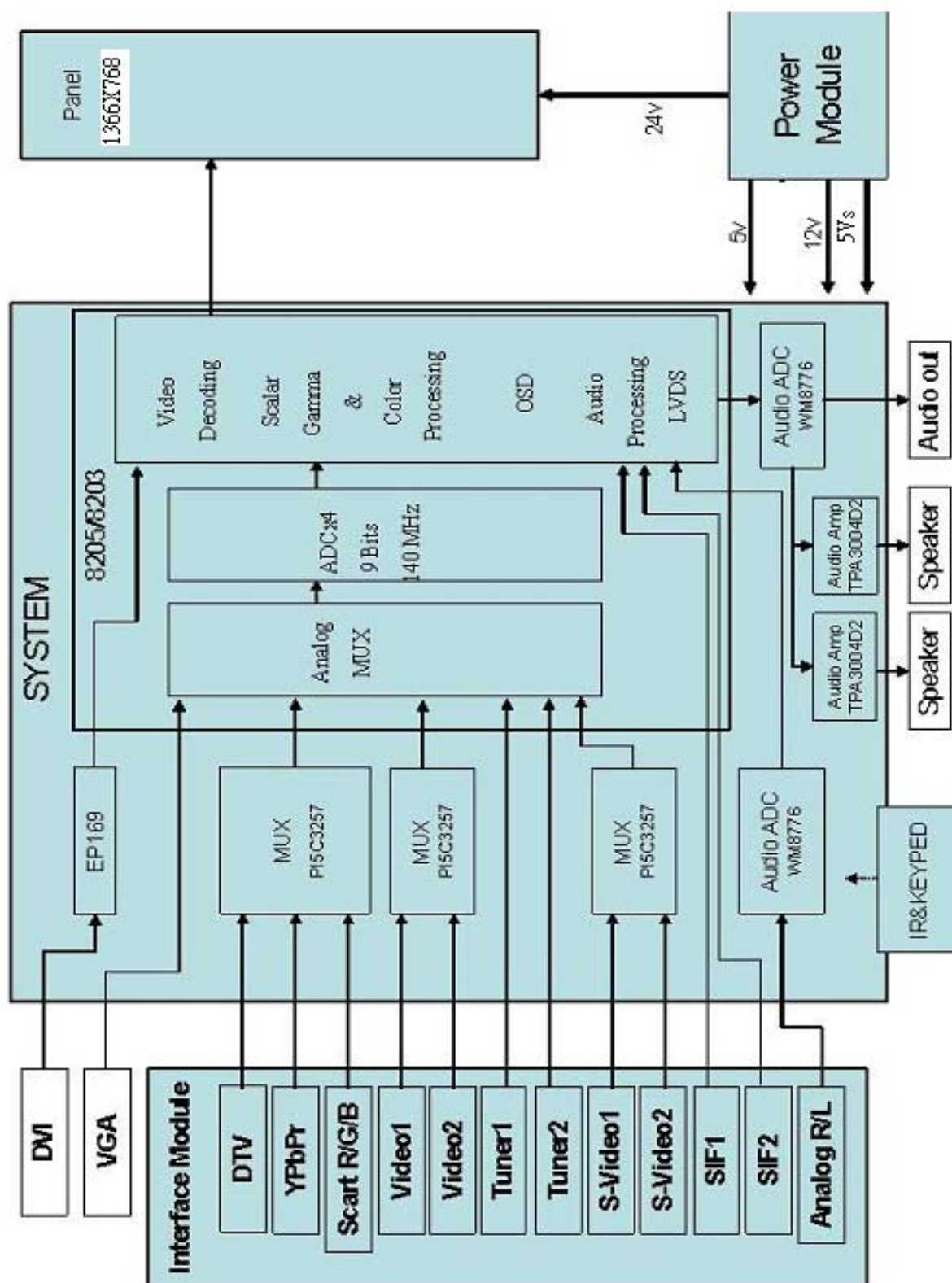
### **1.3 Warning**

1. Remember to unplug the AC cord from the AC outlet before cleaning the product. And do not use liquid cleaners or aerosol cleaners to clean the display.
2. Do not place the product on an unstable place. It can cause the product to fall, resulting in serious personal injuries as well as damage to the product.
3. In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
4. Do not overload AC outlets or extension cords. It can cause fire or electric shock.
5. The AC cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
6. Do not hit the panel. Be careful to prevent from getting hurt by broken glass pieces in case the panel breaks.
7. Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products.
8. Do not place the display near water. Like bathtub, washbasin, kitchen sink and laundry tub, swimming pool and in a wet basement.

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## 2. System Block Diagram

### 2.1 System block diagram





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## 2.3 Connector Pin Definition

### SYSTEM BOARD

**Function: VGA Signal In port**

**Connector type : D-Sub**

**Specification: CNNT-HD D Sub-H-F-3Row-15pin-Dip-BLU**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	VGAR	I	75 ohm termination, 0.7Vp-p red signal
2	VGAG	I	75 ohm termination, 0.7Vp-p green signal
3	VGAB	I	75 ohm termination, 0.7Vp-p blue signal
4	GND	-	GND -
5	NC	-	No connection
6	GND	-	GND
7	GND	-	GND
8	GND	-	GND
9	VGA5V	I	VCC 5V IN
10	GND	-	GND
11	GND	-	-
12	VGASDA	I/O	I2C data bus for Reading DDC data
13	VGA_HS	I	Horizontal Sync.
14	VGA_VS	I	Vertical Sync.
15	VGASCL	I	I2C clock bus for Reading DDC data

**Function: DVI signal port**

**Connector type : DVI**

**Specification: CNNT-DVI-H-29PIN-1.9mm-1.5A-WHITE-dip**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	RX2m	I	TMDS LVDS input signal
2	RX2p	I	TMDS LVDS input signal
3	GND	-	GND
4	NC	-	No connection
5	NC	-	No connection
6	DDC_CLK	I	I2C clock bus for Reading DDC data
7	DDC_DATA	I/O	I2C data bus for Reading DDC data
8	NC	-	No connection

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9	RX1m	I	TMDS LVDS input signal
10	RX1p	I	TMDS LVDS input signal
11	GND	-	GND
12	NC	-	No connection
13	NC	-	No connection
14	GDC5V		VCC 5V
15	GND		GND
16	HOTPLG		VCC 5V
17	RX0m		TMDS LVDS input signal
18	RX0p		TMDS LVDS input signal
19	GND		GND
20	NC	-	No connection
21	NC	-	No connection
22	GND		GND
23	RXCp		TMDS LVDS input clock
24	RXCm		TMDS LVDS input clock
25	NC	-	No connection
26	NC	-	No connection
27	NC	-	No connection
28	NC	-	No connection
29	AGND	-	GND
30	AGND	-	GND

**Function: PC Audio In**

**Connector type: RCA**

**Specification: CNNT-RCA white/red -F DIP RIGHT ANGLE 8.3 -4PIN**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	GND	-	GND
2	AUD_R	I	Audio In_R
3	GND	-	GND
4	AUD_L	I	Audio In_L

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**Function: RS-232 port**

**Connector type: Mini Din**

**Specification: CNNT-Mini Din-H-F- 8 pin-12 -Dip**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	NC	-	No connection
2	FlsahDL#	I	Cable Plug In Detect
3	GND	-	GND
4	NC	-	No connection
5	NC	-	No connection
6	P_DGNS#	-	Download Function Control
7	PC_TXD	O	RS-232 Data Transmit
8	PC_RXD	I	RS-232 Data Receive
9	GND	-	GND
10	GND	-	GND
11	GND	-	GND

**Function: Keypad In**

**Connector type: M15-I20001**

**Specification: CNNT M 15PIN pitch 2.0mm DIP Straight WST(blue)**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	NC	-	NC
2	LED_B1	O	Signal for Indicator LED
3	LED_B1	O	Signal for Indicator LED
4	LED_B1	O	Signal for Indicator LED
5	GND	-	GND
6	IRD	I	IR Data In
7	GND	-	GND
8	KEY_Y3	I	Signal sent from Keypad to System 3
9	KEY_Y2	I	Signal sent from Keypad to System 2
10	KEY_Y1	I	Signal sent from Keypad to System 1
11	KEY_X3	O	Signal sent from System to Keypad 3
12	KEY_X2	O	Signal sent from System to Keypad 2
13	KEY_X1	O	Signal sent from System to Keypad 1
14	GND	-	GND



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15	V5_IR	O	5V POWER Out
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**Function: TUNER IN /AV IN**

**Connector type: BOARD TO BOARD**

**Specification: 2-557100-1 CNNT-Dip Right Angle-M - 80PIN-1.27mm-0.5A(Board to Board)**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	CHKTNR1	I	CHECK AV Board In
2	V5_TUNER	O	POWER OUT_5V
3	V5_TUNER	O	POWER OUT_5V
4	GND	-	GND
5	GND	-	GND
6	NC	-	No connection
7	NC	-	No connection
8	NC	-	No connection
9	NC	-	No connection
10	GND	-	GND
11	HD_PR	I	HD_PR In
12	HD_PB	I	HD_PB In
13	HD_Y	I	HD_Y In
14	SV_SEL1	O	S_Video_SEL
15	GND	-	GND
16	ALO_SC2	O	Scart2 AUDIO_L CH out
17	ARO_SC2	O	Scart2 AUDIO_R CH out
18	ALO_SC1	O	Scart1 AUDIO_L CH out
19	ARO_SC1	O	Scart1 AUDIO_R CH out
20	GND	-	GND
21	YCBCR_L	O	YCBCR AUDIO_L CH out
22	YCBCR_R	O	YCBCR AUDIO_R CH out
23	HDTV_L	O	HDTV_L AUDIO_L CH out
24	HDTV_R	O	HDTV_L AUDIO_R CH out
25	GND	-	GND
26	SIF1_IN	I	SIF format_IN1
27	SIF2_IN	I	SIF format_IN2
28	GND	-	GND
29	IF_TU2CVBS	I	Tuner2 CVBS IN

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30	IF_TU1CVBS	I	Tuner1 CVBS IN
31	GND	-	GND
32	V12_SYS2	O	+12V OUT
33	NC	-	No connection
34	NC	-	No connection
35	V12_SYS2	O	+12V OUT
36	PC2DTV_TX	I	PC TO DTV_TX IN
37	PC2DTV_RX	I	PC TO DTV_RX IN
38	S2DTV_TX	I	SYS TO DTV_TX IN
39	S2DTV_RX	I	SYS TO DTV_RX IN
40	RESETn	I	RESET
41	GND	-	GND
42	CVBS_SC1	I	CVBS1 IN
43	IF_YCVBS	I	S-VIDEO1_Y In
44	IF_C	I	S-VIDEO1_C In
45	GND	-	GND
46	OCVBS_SC2	O	Scart2 cvbs out
47	IF_CR	I	YCBCR_CR IN
48	IF_CB	I	YCBCR_CB IN
49	IF_Y	I	YCBCR_Y IN
50	GND	-	GND
51	DTV_PR	I	DTV_ Pr In
52	DTV_PB	I	DTV_ Pb In
53	DTV_Y	I	DTV_ Y In
54	TPA_MODE	I	CHECK EARPHONE CONNECT In
55	EPOUT_L	O	Audio EARPHONE L CH OUT
56	EPOUT_R	O	Audio EARPHONE R CH OUT
57	AMP_WF	O	Audio Sub woofer OUT
58	LINE_L	O	Audio Line L CH out
59	LINE_R	O	Audio Line R CH out
60	GND	-	GND
61	SAL_SC2	I	Audio CVBS2/SV2 L ch in
62	SAR_SC2	I	Audio CVBS2/SV2 R ch in
63	CVBSAL_SC1	I	Audio CVBS1/SV1 L ch in
64	CVBSAR_SC1	I	Audio CVBS1/SV1 R ch in
65	GND	-	GND

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66	SCL	O	Software I2C Clk
67	SDA	I/O	Software I2C data
68	HWSDA	I/O	hardwae I2C data
69	HWSCS	O	hardwae I2C clk
70	GND	-	GND
71	CVBS_SC2	I	CVBS2 IN
72	IF_YCVBS2	I	S-VIDEO2_Y In
73	IF_C2	I	S-VIDEO2_C In
74	ADC2	I	A/D conver
75	DTV_L	I	Audio DTV L ch in
76	DTV_R	I	Audio DTV R ch in
77	ADC1	I	A/D conver
78	DTV_SPDIF	I	DTV audio format
79	ADC0	I	A/D conver
80	DTV_IR	I	DTV_IR pin

**Function: LVDS output port**

**Connector type: TD01-30R1**

**Specification: CNNT-LVDS-F SMD STRAIGHT-V-30 PIN-1.25mm**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	NC	-	No connection
2	GND	-	GND
3	NC	-	No connection
4	NC	-	No connection
5	NC	-	No connection
6	GND	-	GND
7	GND	-	GND
8	GND	-	GND
9	TXE3P	O	Positive LVDS differential data output
10	TXE3N	O	Negative LVDS differential data output
11	TXECKP	O	Positive LVDS differential clock out
12	TXECKN	O	Negative LVDS differential clock out
13	GND	-	GND
14	GND	-	GND
15	TXE2P	O	Positive LVDS differential data output

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16	TXE2N	O	Negative LVDS differential data output
17	TXE1P	O	Positive LVDS differential data output
18	TXE1N	O	Negative LVDS differential data output
19	TXE0P	O	Positive LVDS differential data output
20	TXE0N	O	Negative LVDS differential data output
21	GND	-	GND
22	GND	-	GND
23	GND	-	GND
24	GND	-	GND
25	GND	-	GND
26	VCC	-	+5.0V power supply
27	VCC	-	+5.0V power supply
28	VCC	-	+5.0V power supply
29	VCC	-	+5.0V power supply
30	VCC	-	+5.0V power supply

**Function: Power Input 1**

**Connector type:M15-I25002**

**Specification: CNNT M 15PIN pitch 2.5mm DIP straight**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	+V5_SYS	I	DC Power 5V IN
2	+V5	I	DC Power 5V IN
3	+V5	I	DC Power 5V IN
4	+V5	I	DC Power 5V IN
5	+V5	I	DC Power 5V IN
6	GND	-	GND
7	GND	-	GND
8	GND	-	GND
9	GND	-	GND
10	+V5	I	DC Power 5V IN
11	GND	-	GND
12	LCD_INVON	O	Inverter On/Off
13	PWSTBY	O	Standby Mode Power 5V
14	BRI	O	Backlight Brightness Control
15	GND	-	GND

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**Function: Power Input 2**

**Connector type:M11-I25002**

**Specification: CNNT M 11PIN pitch 2.5mm DIP straight**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	+V12	I	DC Power 12V IN
2	+V12	I	DC Power 12V IN
3	+V12	I	DC Power 12V IN
4	GND	-	GND
5	GND	-	GND
6	GND	-	GND
7	+12V	I	DC Power 12V IN
8	GND	-	GND
9	+12V	I	DC Power 12V IN
10	GND	-	GND
11	GND	-	GND

**Function: Audio Out (R Channel)**

**Connector type:M3-I25002**

**Specification: CNNT M 3PIN pitch 2.5mm DIP straight red**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	R_OUTN	O	Negative Audio Out_R
2	NC	-	No connection
3	R_OUTP	O	Positive 0Audio Out_R

**Function: Audio Out (L Channel)**

**Connector type: M3-I25002**

**Pecification : CNNT M 3PIN pitch 2.5mm DIP straight white**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	L_OUTN	O	Negative Audio Out_L
2	NC	-	No connection
3	L_OUTP	O	Positive 0Audio Out_L

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## AV BOARD

**Function: TUNER OUT / AV OUT**

**Connector type: BOARD TO BOARD**

**Specification: 2-557100-1 CNNT-Dip Right Angle-M - 80PIN-1.27mm-0.5A(Board to Board)**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	CHKTNR1	O	CHECK AV Board In
2	V5_TUNER	I	POWER IN_5V
3	V5_TUNER	I	POWER IN_5V
4	GND	-	GND
5	GND	-	GND
6	NC	-	No connection
7	NC	-	No connection
8	NC	-	No connection
9	NC	-	No connection
10	GND	-	GND
11	HD_PR	O	HD_PR OUT
12	HD_PB	O	HD_PB OUT
13	HD_Y	O	HD_Y OUT
14	SV_SEL1	I	S_Video_SEL
15	GND	-	GND
16	ALO_SC2	I	Scart2 AUDIO_L CH IN
17	ARO_SC2	I	Scart2 AUDIO_R CH IN
18	ALO_SC1	I	Scart1 AUDIO_L CH IN
19	ARO_SC1	I	Scart1 AUDIO_R CH IN
20	GND	-	GND
21	YCBCR_L	I	YCBCR AUDIO_L CH IN
22	YCBCR_R	I	YCBCR AUDIO_R CH IN
23	HDTV_L	I	HDTV_L AUDIO_L CH IN
24	HDTV_R	I	HDTV_L AUDIO_R CH IN
25	GND	-	GND
26	SIF1_OUT	O	SIF format_OUT1
27	SIF2_OUT	O	SIF format_OUT2
28	GND	-	GND
29	IF_TU2CVBS	O	Tuner2 CVBS OUT
30	IF_TU1CVBS	O	Tuner1 CVBS OUT

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31	GND	-	GND
32	V12_SYS2	I	+12V IN
33	NC	-	No connection
34	NC	-	No connection
35	V12_SYS2	I	+12V IN
36	PC2DTV_TX	O	PC TO DTV_TX OUT
37	PC2DTV_RX	O	PC TO DTV_RX OUT
38	S2DTV_TX	O	SYS TO DTV_TX OUT
39	S2DTV_RX	O	SYS TO DTV_RX OUT
40	RESETn	O	RESET
41	GND	-	GND
42	CVBS_SC1	O	CVBS1 OUT
43	IF_YCVBS	O	S-VIDEO1_Y OUT
44	IF_C	O	S-VIDEO1_C OUT
45	GND	-	GND
46	OCVBS_SC2	I	Scart2 cvbs IN
47	IF_CR	O	YCBCR_CR OUT
48	IF_CB	O	YCBCR_CB OUT
49	IF_Y	O	YCBCR_Y OUT
50	GND	-	GND
51	DTV_PR	O	DTV_ Pr OUT
52	DTV_PB	O	DTV_ Pb OUT
53	DTV_Y	O	DTV_ Y OUT
54	TPA_MODE	O	CHECK EARPHONE CONNECT OUT
55	EPOUT_L	I	Audio EARPHONE L CH IN
56	EPOUT_R	I	Audio EARPHONE R CH IN
57	AMP_WF	I	Audio Sub woofer IN
58	LINE_L	I	Audio Line L CH IN
59	LINE_R	I	Audio Line R CH IN
60	GND	-	GND
61	SAL_SC2	O	Audio CVBS2/SV2 L ch OUT
62	SAR_SC2	O	Audio CVBS2/SV2 R ch OUT
63	CVBSAL_SC1	O	Audio CVBS1/SV1 L ch OUT
64	CVBSAR_SC1	O	Audio CVBS1/SV1 R ch OUT
65	GND	-	GND
66	SCL	I	Software I2C Clk

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67	SDA	I/O	Software I2C data
68	HWSDA	I/O	hardwae I2C data
69	HW_SCL	I	hardwae I2C clk
70	GND	-	GND
71	CVBS_SC2	O	CVBS2 OUT
72	IF_YCVBS2	O	S-VIDEO2_Y OUT
73	IF_C2	O	S-VIDEO2_C OUT
74	ADC2	O	A/D conver
75	DTV_L	O	Audio DTV L ch OUT
76	DTV_R	O	Audio DTV R ch OUT
77	ADC1	O	A/D conver
78	DTV_SPDIF	O	DTV audio format
79	ADC0	O	A/D conver
80	DTV_IR	O	DTV_IR pin

**Function: S-Video1 1/2 In**

**Connector type: Mini Din**

**Specification: CNNT F 12PIN Mini Din DIP Right Angle 12 AMP( 2 S-Video)**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	GND	-	GND
2	GND	-	GND
3	S1AV_C2	I	S-Video1_C2 In
4	S1AV_Y2	I	S-Video1_Y2 In
5	GND	-	GND
6	GND	-	GND
7	S1AV_C1	I	S-Video1_C1 In
8	S1AV_Y1	I	S-Video1_Y1 In
9	GND	-	GND
10	GND	-	GND
11	GND	-	GND
12	GND	-	GND
13	GND	-	GND



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**Function: CVBS 1/2 and CVBS 1/2 AUDIO 1/2 In**

**Connector type: RCA**

**Specification: CNNT-RCA\*6 yellow & white & red / yellow & white & red**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	CVBS1	I	CVBS1 In
2	CVBS1_AR	I	CVBS1 Audio_R In
3	CVBS1_AL	I	CVBS1 Audio_L In
4	CVBS2	I	CVBS2 In
5	CVBS2_AR	I	CVBS2 Audio_R In
6	CVBS2_AL	I	CVBS2 Audio_L In
7	GND	-	GND
8	GND	-	GND
9	GND	-	GND

**Function: Earphone Out**

**Connector type: PHONE JACK**

**Specification: CNNT-EAR Phone Jack-H-F-5pin-3.6 -Dip**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	EAR_ROUT	O	EAR Audio_R OUT
2	GND	-	GND
3	TPA_MODE	O	TPA_MODE
4	EAR_LOUT	O	EAR Audio_L OUT
5	GND	-	GND

**Function: Audio Output Port (Line Out)**

**Connector type: RCA**

**Specification: CNNT-RCA\*2 white / red**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	GND	-	GND
2	LINE_R	O	Audio Line_R Out
3	GND	-	GND
4	LINE_L	O	Audio Line_L Out

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**Function: Component 1/2 (YPbPr1/YcbCr1) In**

**Connector type: RCA**

**Specification: CNNT-RCA\*6 green & blue & red / green & blue & red**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	COM1_Y	I	Component1_Y In
2	COM1_Pb	I	Component1_Pb In
3	COM1_Pr	I	Component1_Pr In
4	COM2_Y	I	Component2_Y In
5	COM2_Cb	I	Component2_Cb In
6	COM2_Cr	I	Component2_Cr In
7	GND	-	GND
8	GND	-	GND
9	GND	-	GND

**Function: Component 1/2 Audio 1/2 In**

**Connector type: RCA**

**Specification: CNNT-RCA\*4 white & red / white & red**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	COM1_AL	I	Component1 Audio_L In
2	COM1_AR	I	Component1 Audio_R In
3	COM2_AL	I	Component2 Audio_L In
4	COM2_AR	I	Component2 Audio_R In
5	GND	-	GND
6	GND	-	GND

**Function: Digital Tuner Out**

**Connector type:MD32-I20003**

**Specification: CNNT M 32pin (16x2) pitch 2.0mm DIP straight**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	V5_TUNER	O	POWER OUT_5V
2	+12V	O	POWER OUT_12V
3	V5_TUNER	O	POWER OUT_5V
4	+12V	O	POWER OUT_12V

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5	GND	-	GND
6	GND	-	GND
7	S2DTV_TX	I	SYS TO DTV_TX IN
8	RESETn	O	RESET
9	S2DTV_RX	I	SYS TO DTV_RX IN
10	MAIN_DE	I	MAIN_DE pin
11	GND	-	GND
12	GND	-	GND
13	PC2DTV_TX	I	PC TO DTV_TX IN
14	SCL	I	Software I2C Clk
15	PC2DTV_RX	I	PC TO DTV_RX IN
16	SDA	I/O	Software I2C data
17	GND	-	GND
18	GND	-	GND
19	DTV_Y	I	DTV_Y In
20	DTV_SPDIF	I	DTV audio format
21	GND	-	GND
22	DTV_SPDIF	I	DTV audio format
23	DTV_Pb	I	DTV_Pb In
24	GND	-	GND
25	GND	-	GND
26	DTV_L	I	Audio DTV L ch I
27	DTV_Pr	I	DTV_Pr In
28	DTV_R	I	Audio DTV R ch I
29	DTV_DL	I	DTV_DL pin
30	DTV_IR	I	DTV_IR pin
31	DTV_NM	I	DTV_NM pin
32	GND	-	GND

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## KEYPAD BOARD

**Function: Keypad In**

**Connector type: M15-I20001**

**Specification: CNNT M 15PIN pitch 2.0mm DIP Straight WST**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	NC	-	NC
2	LED_B1	I	Signal for Indicator LED
3	LED_B1	I	Signal for Indicator LED
4	LED_B1	I	Signal for Indicator LED
5	GND	-	GND
6	IRD	O	IR Data Out
7	GND	-	GND
8	KEY_Y3	O	Signal sent from Keypad to System 3
9	KEY_Y2	O	Signal sent from Keypad to System 2
10	KEY_Y1	O	Signal sent from Keypad to System 1
11	KEY_X3	I	Signal sent from System to Keypad 3
12	KEY_X2	I	Signal sent from System to Keypad 2
13	KEY_X1	I	Signal sent from System to Keypad 1
14	GND	-	GND
15	V5_IR	I	5V POWER In

**Function: Indicator Out**

**Connector type: M3-I20001**

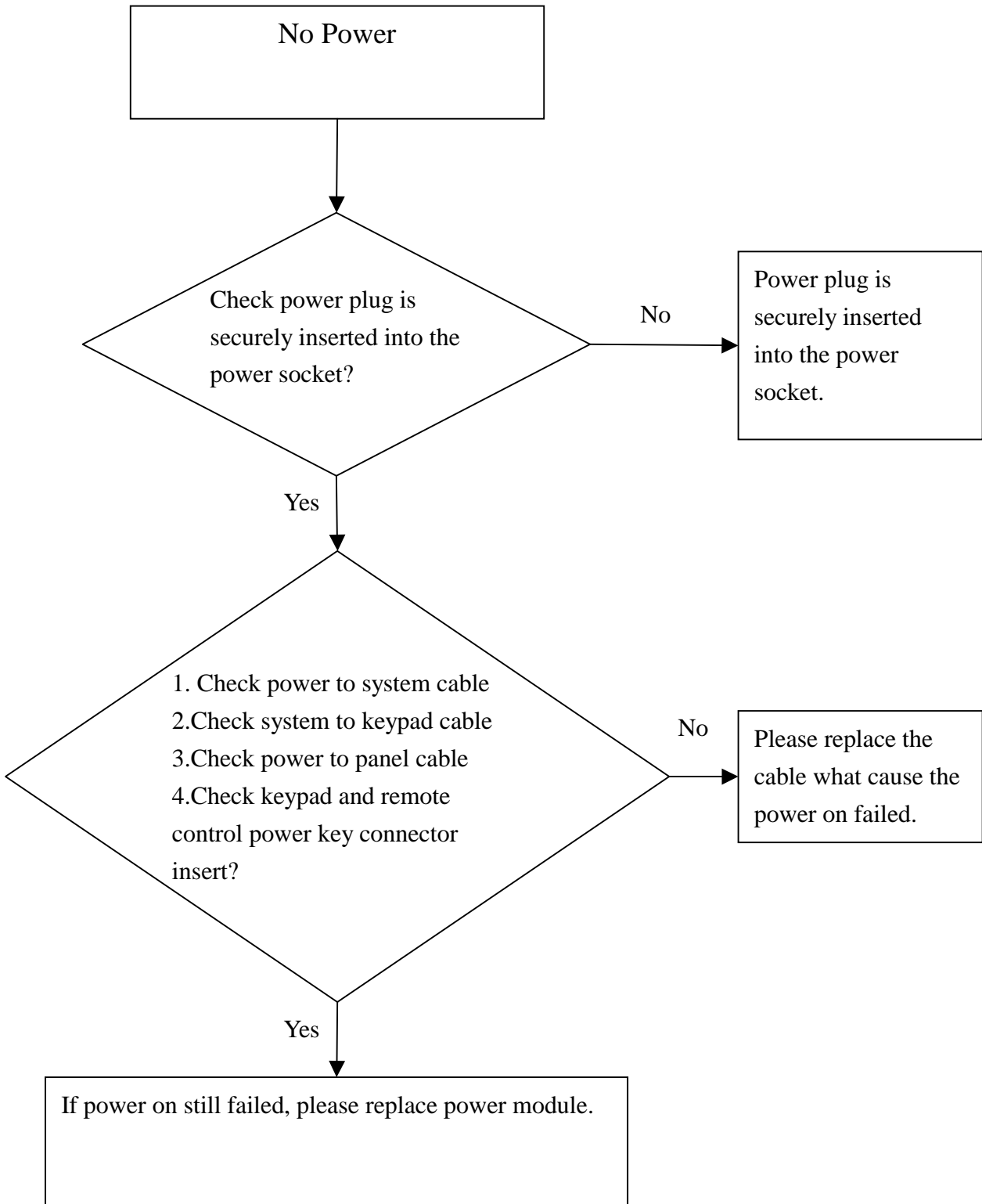
**Specification: CNNT M 3PIN pitch 2.0mm DIP Straight WST**

Pin Definition			
Pin No.	Pin Name	I/O	Description
1	V5_Indicator	O	5V POWER Out
2	LED_B1	I	Signal for Indicator LED
3	GND	-	GND

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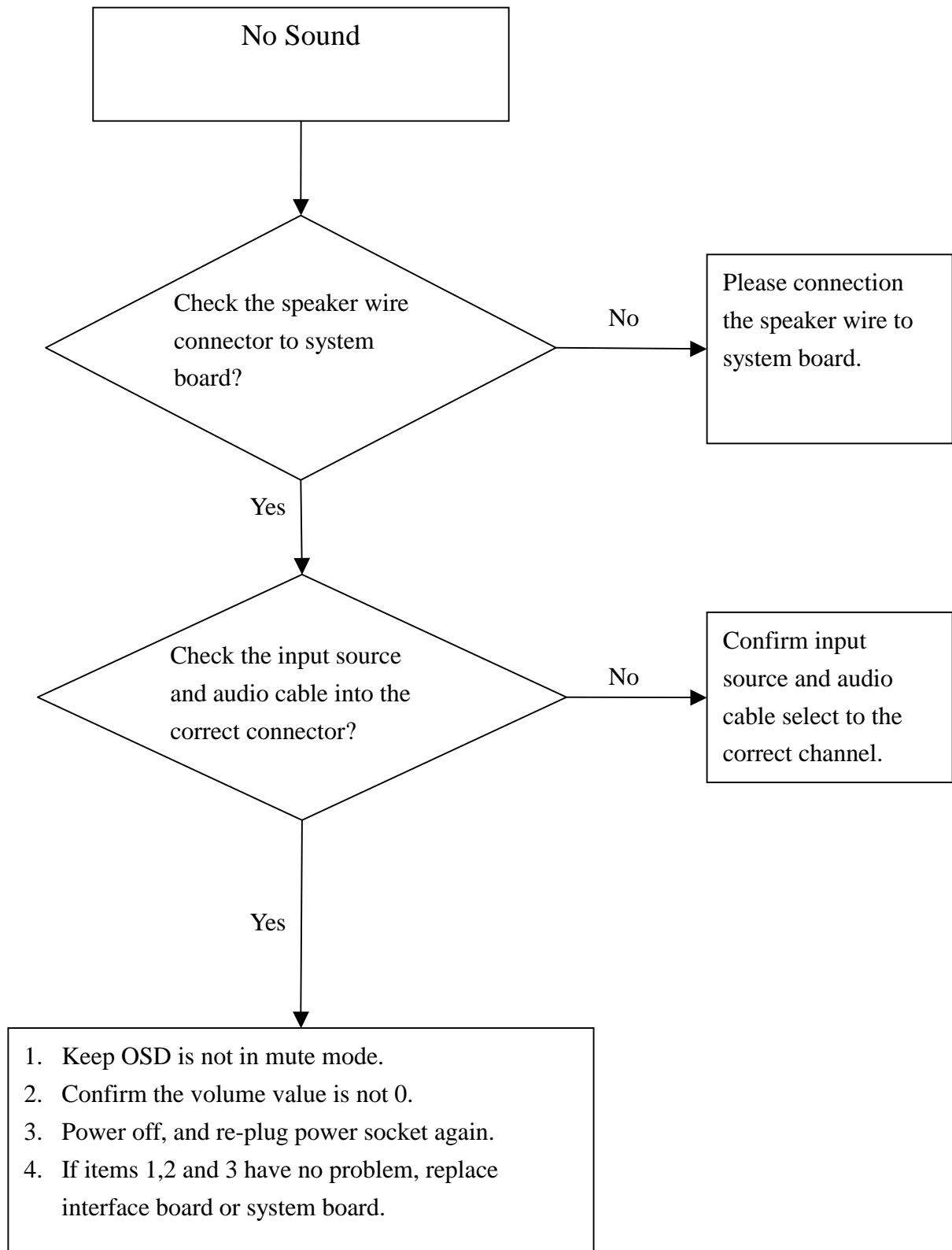
### 3. Troubleshooting

#### 3.1 No Power



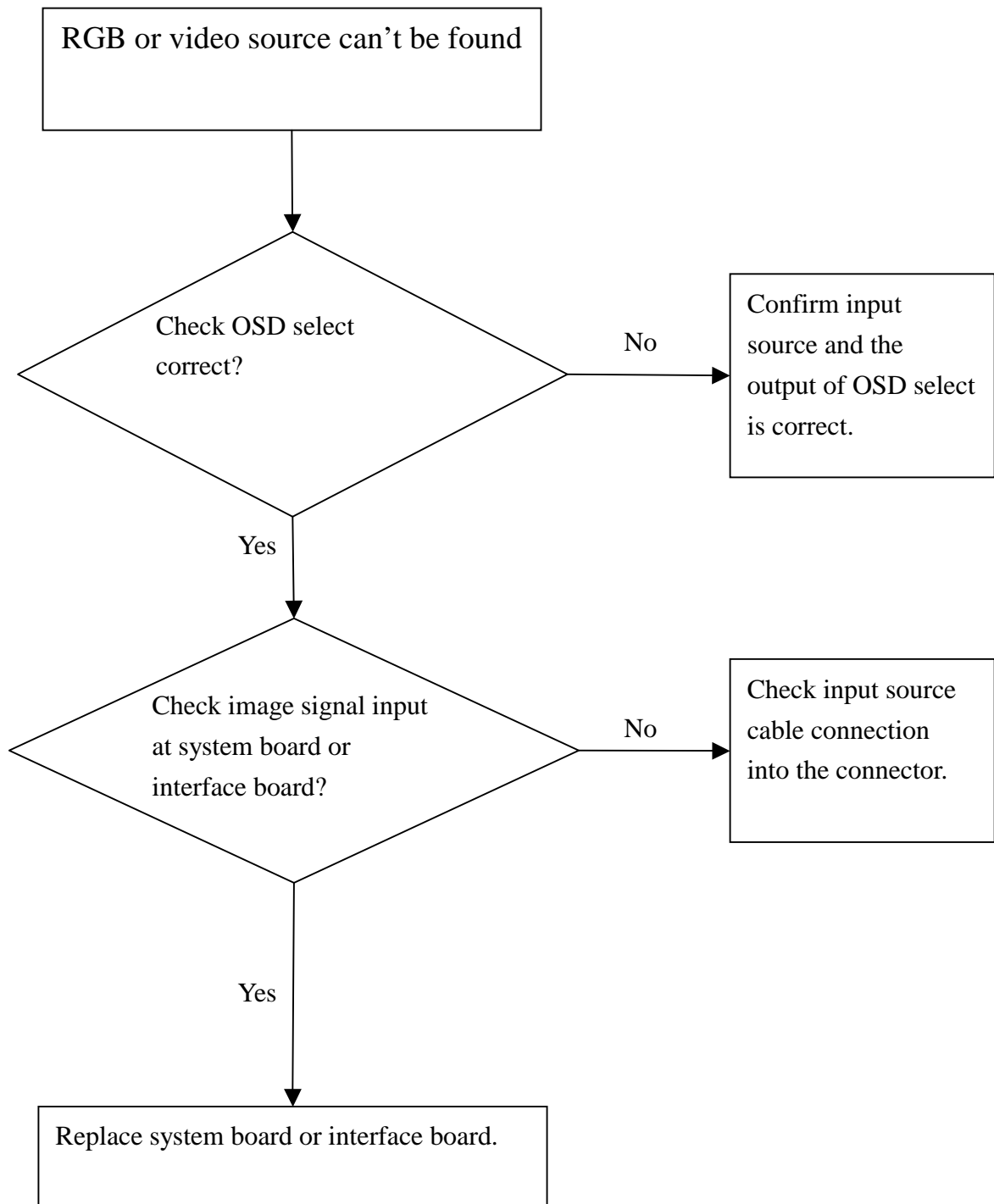
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### 3.2 No Sound



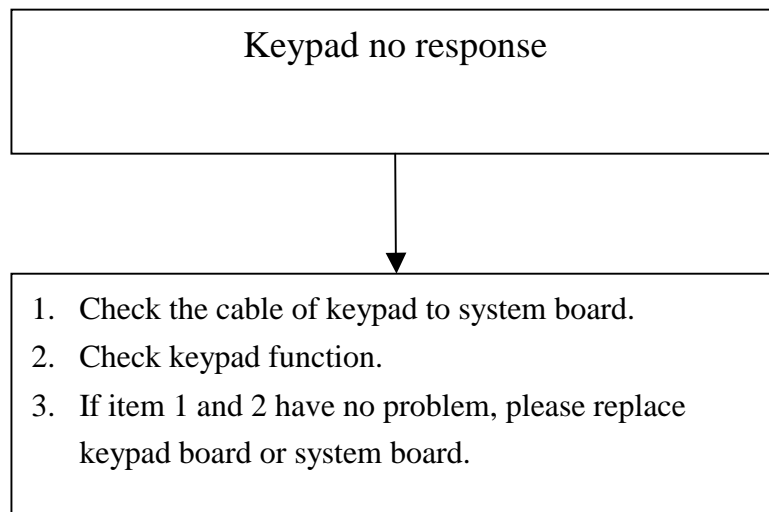
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### 3.3 No Source Input



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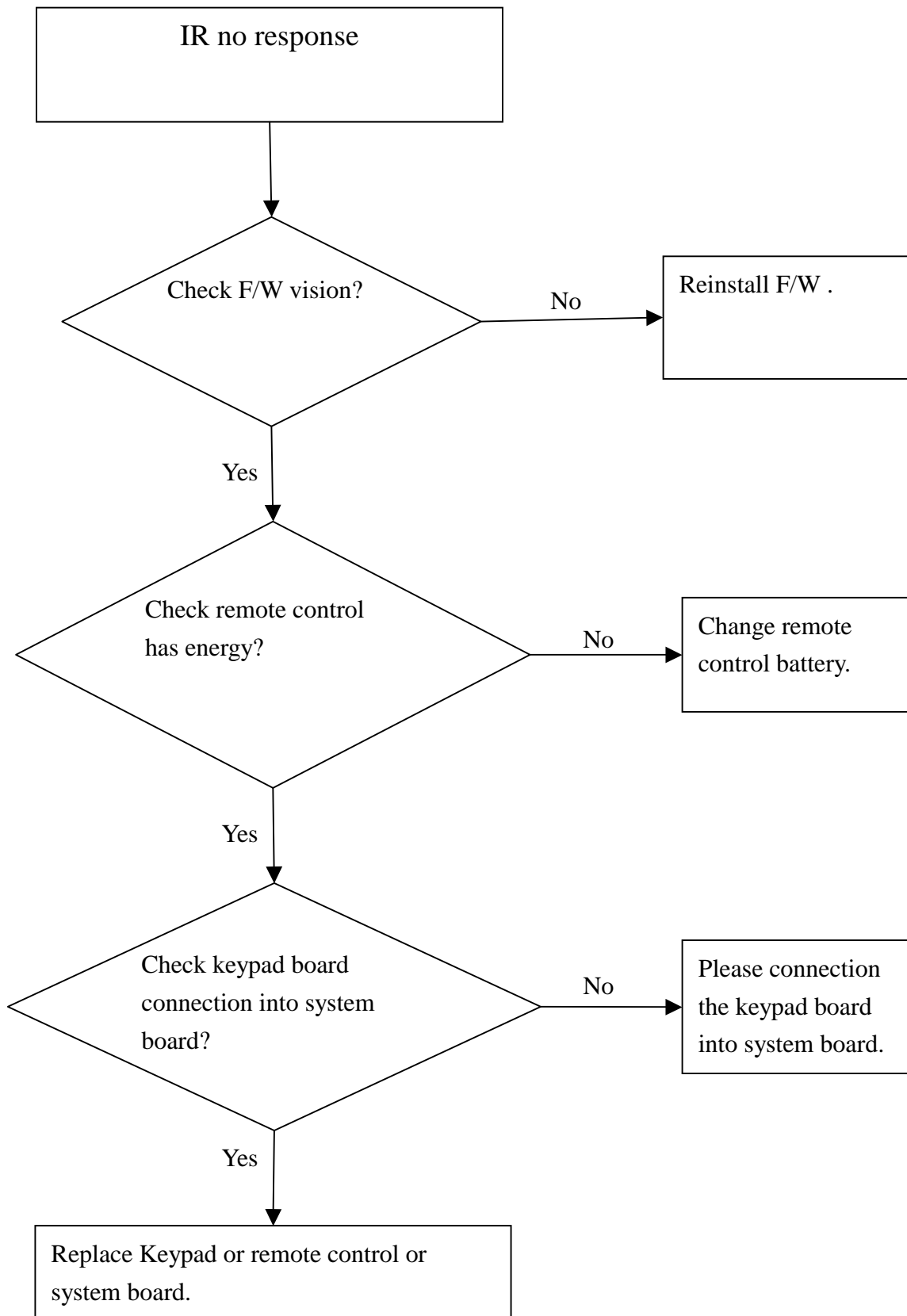
### 3.4 Keypad Failed





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### 3.5 IR Failed



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#### 4. Firmware upgrade applications

1. Update Firmware tools :
  - 1.PC(Notebook)
  2. transmission line as Figure1
  - 3.Sofeware(MtkTool.exe , COMPR.DLL , MTKDLL.DLL)



Figure1

2. **Cable switch:** on **D** side (refer Figure2)

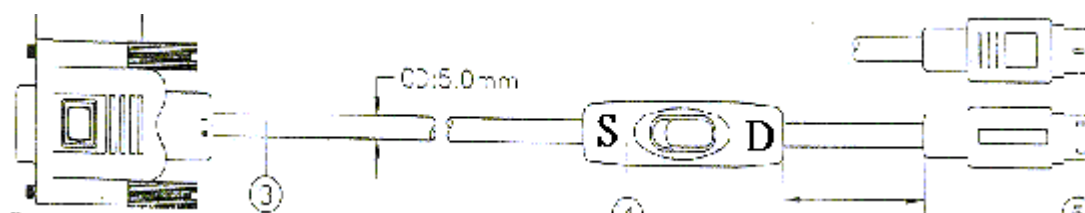


Figure2

3. Insert the power cord and RS232 cable.
4. Insert RS232 cable in **Mouse** socket or **RS232** socket(refer Figure3) and other side insert to service socket on TV(refer Figure4 and Figure5)

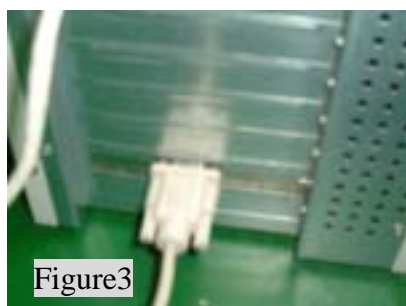


Figure3



Figure4



Figure5

5. There are some files should be in directory. (MtkTool.exe , COMPR.DLL , MTKDLL.DLL)



Figure6

6. Execute **MtkTool.exe**.(step 6 and step 7 please refer Figure 6)
7. Make sure IC model is MT8205, serial connection is correct(default is COM1) and baud rate

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is 115200.

8. Click the Browse of "Load Bin file option" to choose the correct firmware.
9. Click the bottom of Upgrade, System will start upgrade firmware, when it finished the operation, list form has to show the "Finished" as blow arrow (step 8 and step 10 please refer the Figure7)
10. pull out the RS232 cable and AC cord.

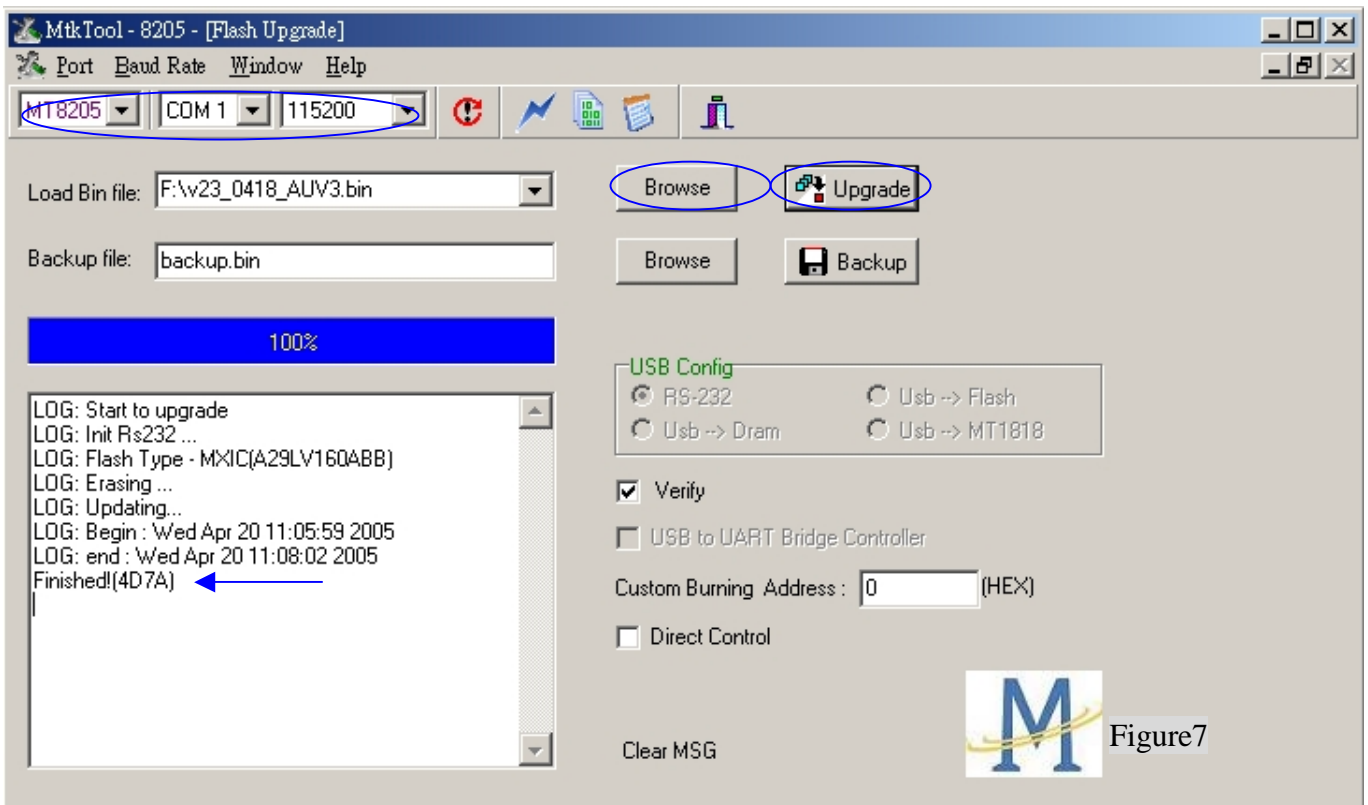


Figure7

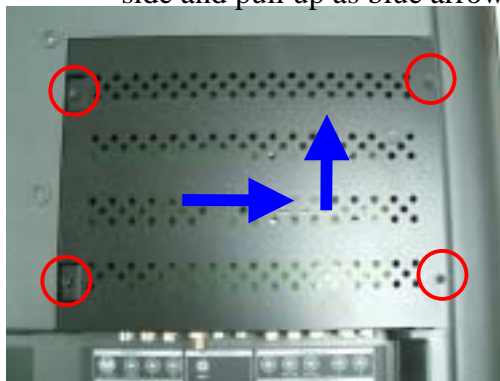
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## 5. Disaggregate Graphic

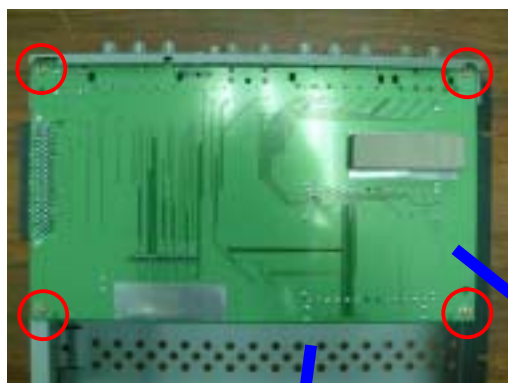
### 5.1 Interface Module



1. Loosen 4 screws as red circles.
2. Pull the Interface module to the right side and pull up as blue arrow.



3. Loosen 5 screws as red circles.
4. Loosen Tuner nut as blue circles.

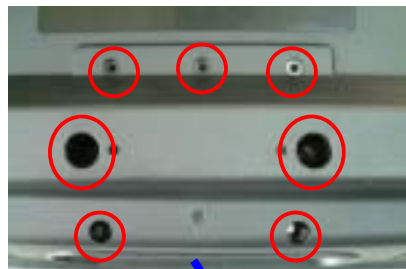


5. Loosen 4 screws as red circles.
6. Take apart AV cover metal and Interface Board

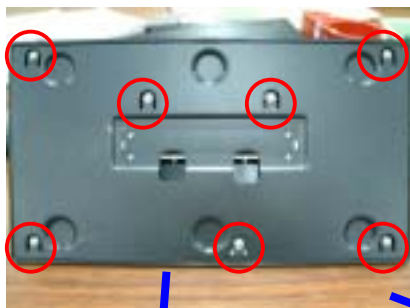


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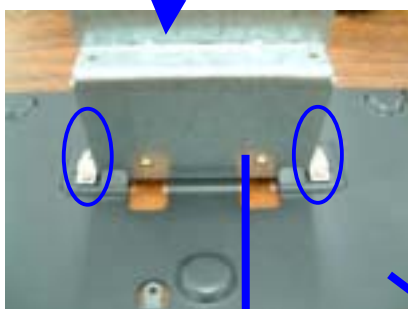
## 5.2 Stand Module



1. Loosen 7 screws as red circles.
2. Take apart the Stand Module.



3. Loosen 7 screws as red circles.
4. Take apart the Stand Cover and Stand Support Metal



5. Loosen 4 screws as blue circles.
6. Take apart the Stand Bottom Metal and Stand Support Metal.



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### 5.3 Back Cover



1. Please finish the step 5.1 and 5.2 to take apart the Interface module and Stand Module first.
2. Loosen 11 screws as red circles.
3. Take apart the Back Cover and TV.





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#### 5.4 System board

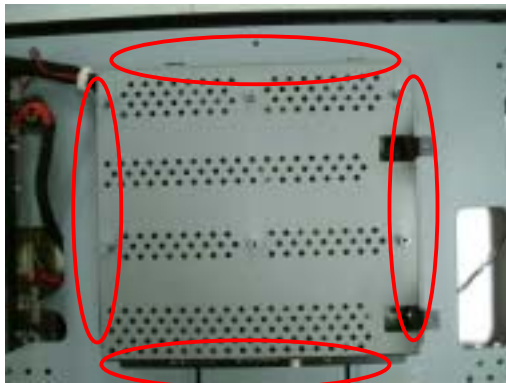
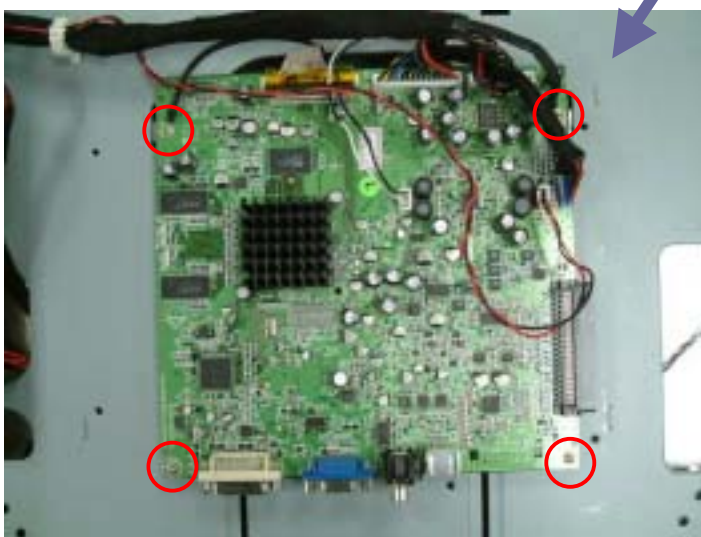
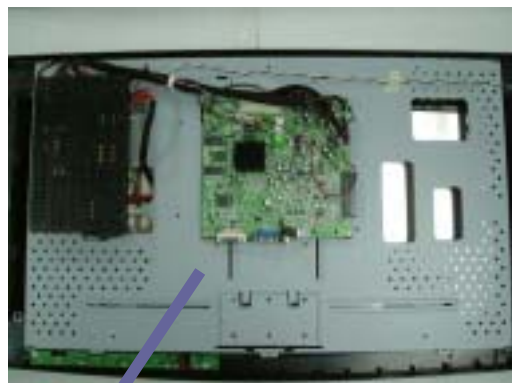


Figure1



Figure2

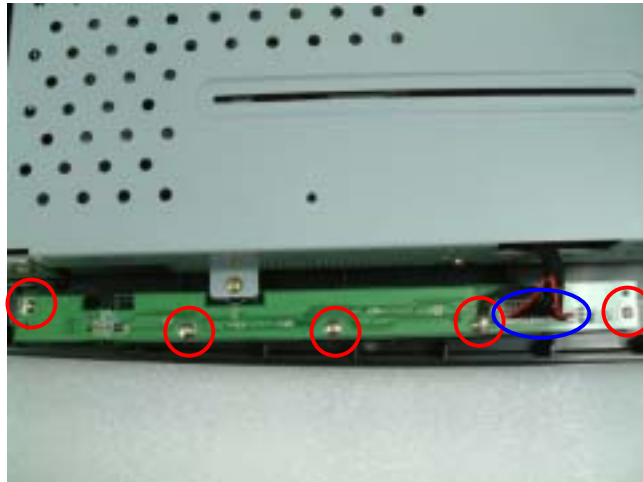
1. Please loosen 8 screws as red circles of Figure1, the screw locations are around the Shielding, every side has 2 screws.
2. Loosen 1 screw as blue circles of Figure2.
3. Take apart the shailding.



4. Please pull out of all wires.
5. Loosen 4 screws as red circles.
6. Take apart the System Board.

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### 5.5 Keypad board



1. Please loosen 5 screws as red circles.
2. Take off all of connector as blue circle.

### 5.6 Speaker



Right side



Left side

1. You need pull out of speaker wire with System board connector.
2. Please directly take apart the Speaker.



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## 5.7 Power Module

1. Please pull out the power wires with Panel Inverter connector and System board connector as red arrows of Figure1 and Figure2.

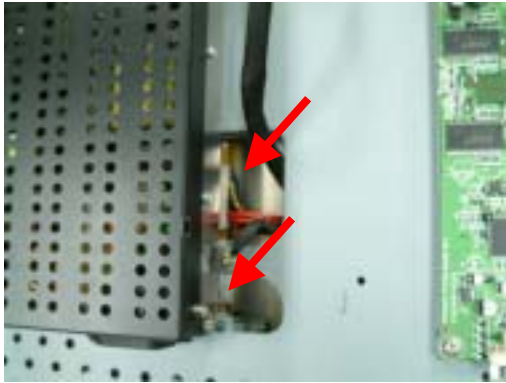
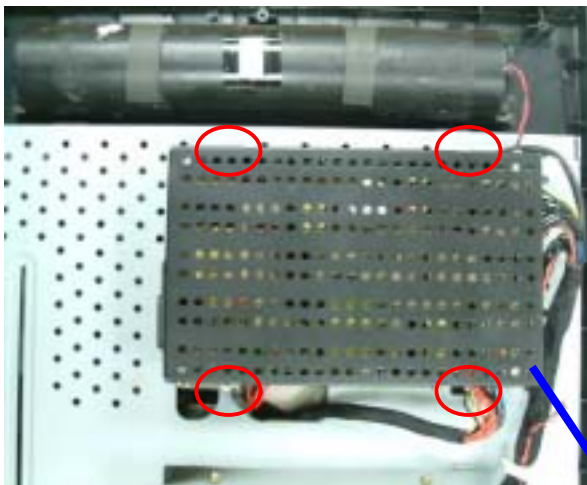


Figure1

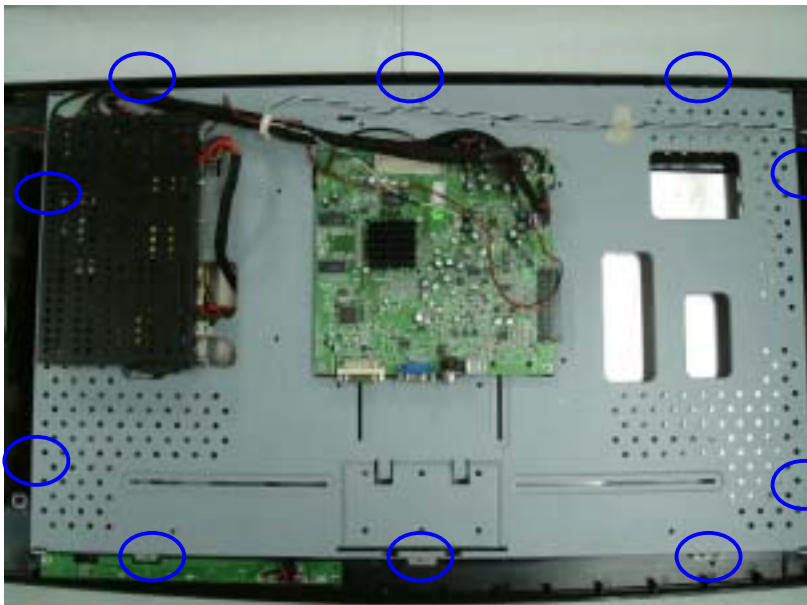


Figure2

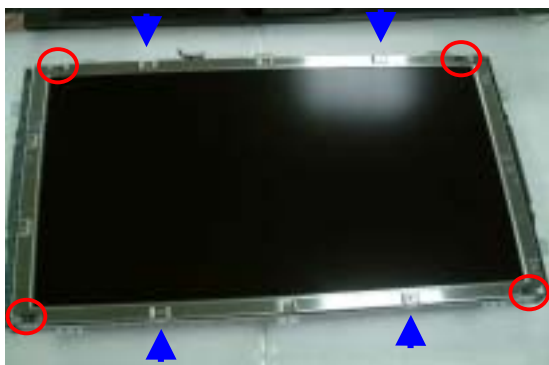


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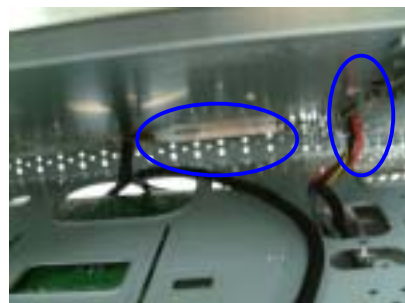
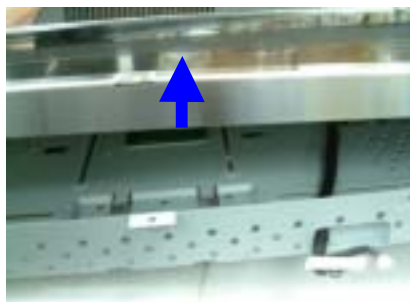
## 5.8 LCD panel module



1. Loosen 10 screws as blue circles.



2. Loosen 4 screws as red circles.
3. Loosen 4 screws as blue arrows and blue circles.
4. If you take off the System Board and Power Supply before, you can direct take apart the Panel



5. Careful to take panel one side up as blue arrow.
6. Pull out the LVDS wire and Power wire.
7. Take apart the Panel Module.